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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/922,742	08/07/2001	Toshikazu Nakamura	108066-00038	9593

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ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
Suite 600
1050 Connecticut Avenue, N.W.
Washington, DC 20036-5339

EXAMINER

VITAL, PIERRE M

ART UNIT	PAPER NUMBER
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2188

DATE MAILED: 05/18/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary

Application No.

09/922,742

Applicant(s)

NAKAMURA, TOSHIKAZU

Examiner

Pierre M. Vital

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 is/are allowed.
- 6) ☒ Claim(s) 13-16, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 17 and 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to applicant's communication filed March 26, 2004 in response to PTO Office Action mailed November 26, 2003. The Applicant's remarks and amendments to the claims and/or the specification were considered with the results that follow.
2. Claims 1-11 and 13-20 have been presented for examination in this application. In response to the last Office Action, claims 13-16 and 19-20 have been amended. No claims have been canceled. No claims have been added. As a result, claims 1-11 and 13-20 are now pending in this application.

Response to Arguments

3. Applicant's arguments, see Paper No. 10, filed March 26, 2004, with respect to claims 1-11 have been fully considered and are persuasive. The rejection of claims 1-11 has been withdrawn.
4. Applicant's arguments, see Paper No. 10, filed March 26, 2004, with respect to the rejection(s) of claim(s) 13-20 under Ooishi et al (US6,166,990) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the Ohtake et al. (US6,088,290) reference of record.
5. Applicant's arguments with respect to claims 13-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

6. Claim 13 is objected to because of the following informalities:

In claim 13, line 1, before "semiconductor", it appears that "The" should be changed to --A--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims are rejected under 35 U.S.C. 102(e) as being anticipated by Ohtake et al. (US6,088,290).

As per claims 13, 14 and 19, Ohtake discloses a semiconductor integrated circuit comprising:

a clock buffer for generating an internal clock signal [*clock input buffer circuits 81 and 82 generate internal clock signals CLKIN1 and CLKIN2; Fig. 9; col. 1, lines 35-37*]; an input buffer that fetches an input signal in synchronization with said internal clock signal provided from the clock buffer [*all operations of the DRAM are synchronism with the rising of clock signals*

Art Unit: 2188

supplied to clock signal input pins; col. 1, lines 22-24]; and a clock buffer controller that activates said clock buffer, only when there is a change in said input signal, so that the clock buffer generates the internal clock signal and provides the internal clock signal to said input buffer [input buffer in activate state, clock signal CLKIN2 generated; input buffer in non-activate state, clock signal CLKIN2 not generated; col. 4, lines 35-49].

As per claims 15, 16 and 20, Ohtake discloses the claimed invention as detailed above in the previous paragraphs. Ohtake further discloses a plurality of input buffers [input buffers 41i; Fig. 2; col. 7, lines 24-29].

Allowable Subject Matter

9. Claims 1-11 are allowed over the prior art of record.

10. Claims 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter:

As per claims 1, 5 and 11, the prior art of record does not teach or suggest "a clock input buffer supplying an internal clock to a command, address, and data input

Art Unit: 2188

buffers in normal operation mode, and wherein said clock input buffer supplies said internal clock to said command input buffer and stops supply of said internal clock to said address input buffer or data input buffer in data hold mode" in combination with the other elements set forth in the claimed invention.

Therefore, dependent claims 2-4, 6-10 are allowable as being dependent upon independent claim 1, 5 and 11 and having additional allowable features therein.

As per claim 17, the prior art of record does not teach or suggest "a signal change monitoring circuit including a comparative circuit that compares an input signal with signal output from an input buffer, and wherein a clock buffer controller further includes a logic circuit that logically synthesizes signals output from a plurality of said comparative circuits, generates an activation signal that activates said clock buffer, and supplies the activation to said clock buffer" in combination with the other elements set forth in the claimed invention.

Therefore, dependent claim 18 is allowable as being dependent upon independent claim 17 and having additional allowable features therein.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. § 1.111 (c) to consider these references fully when responding to this action. The documents cited therein

Art Unit: 2188

teach SDRAM operating in synchronism with external clock, clock input buffer operating in normal operation mode or data hold mode and activating clock buffer when there is change in input signal supplied to input buffer.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pierre M. Vital whose telephone number is (703) 306-5839. The examiner can normally be reached on Mon-Fri, 8:30 am - 6:00 pm, alternate Friday off.

Art Unit: 2188

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (703) 306-2903. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 15, 2004

Pierre M. Vital
Pierre M. Vital
Examiner
Art Unit 2188